# KENTUCKY DEPARTMENT OF FISH AND WILDLIFE RESOURCES WETLAND AND STREAM FEE-IN-LIEU-OF MITIGATION PROGRAM

Program Report for Period July 1, 2011 through December 31, 2011

Kentucky Department of Fish and Wildlife Resources #1 Sportsman's Lane Frankfort, KY 40601

April 2012

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#### Introduction

This report provides information on the Kentucky Department of Fish and Wildlife Resources (KDFWR) "Fee In-Lieu of" (FILO) program beginning with the state fiscal year 2012 and ending December 31, 2011. The report includes only a six-month period because the new agreement between the FILO program and the USACE went into effect early in 2012 (described in more detail below). Future reports will cover the calendar year. This report includes financial and project status, staffing, and activities performed during the last half of 2011 to fulfill the reporting requirements outlined in the 2002 "Agreement Concerning In-Lieu Mitigation Fees" between KDFWR and the U.S. Army Corps of Engineers (USACE).

In July 2000, the Kentucky Legislature passed KRS 150.255, which established The Kentucky Wetland and Stream Mitigation Fund. The KDFWR Stream and Wetland Restoration Program manages this fund to provide a consistent and successful approach to fulfill compensatory mitigation requirements associated with Section 404 and 401 requirements of the USACE and the Kentucky Division of Water (KDOW).

A Section 404 permit from the USACE and a Section 401 Water Quality Certification from KDOW are required for activities resulting in the permanent loss of streams or wetlands that require mitigation. The intent of the mitigation is to compensate for the permanent loss of aquatic functions within a defined watershed or regional area.

One option for 404 permit applicants is to pay a fee to an entity that is approved by the Corps of Engineers to conduct the mitigation in-lieu of performing the mitigation themselves. This method of mitigation is termed "in-lieu fee mitigation." The Kentucky Wetland and Stream Mitigation Fund sponsors an in-lieu fee mitigation program that is supported by payments made by 404 permit applicants to satisfy regulatory requirements. The monies in the fund are used to implement projects that improve degraded streams and wetlands throughout the Commonwealth, with the majority of projects focused on stream restoration and enhancement on private lands. Thus, the success of the program is largely dependent on cooperation and development of partnerships with private landowners. The program also has the alternative of preserving high quality aquatic resources.

The USACE has agreements (Memorandums of Agreement or MOAs) that established two inlieu fee programs in Kentucky: Northern Kentucky University (NKU), servicing the northern Kentucky region, and KDFWR for the remainder of the Commonwealth (Figure 1). The agreements between the sponsors and the USACE ensure that mitigation is completed, is sufficient to compensate for losses, and adheres to applicable regulations and guidelines. By accepting in-lieu fee payments, the sponsor is assuming responsibility to provide compensatory mitigation pursuant to the terms of the agreement established with the USACE.

In addition to the in-lieu fee agreement with the USACE, KDFWR entered into a second agreement that established an Interagency Review Team (IRT) of resource and regulatory agencies composed of the USACE, KDOW, U.S. Fish and Wildlife Service (USFWS), USEPA, and KDFWR. The function of the IRT is to define conditions under which in-lieu-fees may be used, to review and approve individual mitigation projects, and to provide annual reviews of the

completed and on-going mitigation projects. KDFWR participates in programmatic activities of the IRT and votes on projects introduced by NKU, but it cannot vote on its own program's projects.

The IRT requires that all KFDWR in-lieu fee projects be permanently protected through conservation easements, the purchase of lands with deed restrictions, and long-term management plans on public properties such as U.S. Forest Service National Forest lands. This involves identifying landowners willing to donate a Conservation Easement or purchase of land by a resource agency, institution, or non-profit conservation organization. Conservation easement boundaries were typically 25-50 feet on each bank but have recently not been less than 50 feet. Recent projects also have tended to be of greater length, usually several thousand feet, in order to achieve an economy of scale with construction costs and to lower costs per credit.

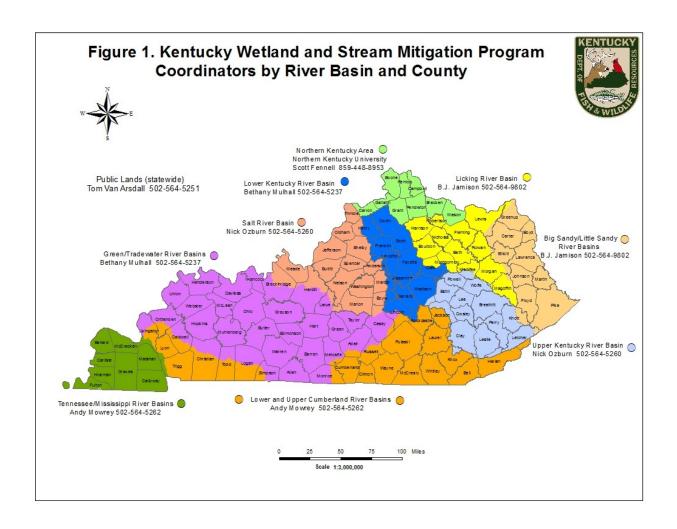
## **Updated Memorandum of Agreement**

At the end of calendar year 2011, final agency comments were being addressed for the updated MOA that complies with the June 2008 Final Mitigation Rule. The current MOA between the USACE and KDFWR has been extended until these changes are made and the new MOA is in effect. The new MOA: 1) delineates service areas into ten units by dividing upper and lower reaches of several major river basins (Licking, Kentucky, and Cumberland) based on mitigation credit units (Eastern Kentucky Stream Assessment Protocol and Ecological Integrity Units are used in the Eastern Kentucky Coalfield and Adjusted Mitigation Units are used in the remaining areas of the Commonwealth); 2) revises the service area boundary between the two in-lieu fee programs in northern Kentucky; 3) sets forth frameworks in each of ten service areas for prioritizing projects; 4) updates the requirements for mitigation plans, which must be submitted with each project; 5) transitions all funds collected under the existing agreement to a credit-based fee schedule; 6) establishes a 3-year time frame from the time fees are received for beginning construction; and 7) establishes an accounting framework for compliance based on advance credits and released credits.

The FILO program is already in compliance with many of the requirements of the U.S. Environmental Protection Agency (USEPA) and USACE 2008 Mitigation Rule, including: 1) description of service areas; 2) accounting procedures; 3) statement of legal responsibility of inlieu fee program; 4) implementing permanent protection; and 5) development of mitigation plans for each project.

## **FILO Staff and Basin Assignments**

An Internal Policy Analyst position was filled in September 2011 with the hire of Shannon MacDonald. That brought the total staff of the FILO program to seven. The other six staff are: Nick Ozburn, Andy Mowrey, Rob Lewis, B.J. Jamison, Bethany Mulhall, and Tom Van Arsdall. Staff are assigned service areas comprised of major watersheds or public lands (Figure 1).



## **Landowner Contacts and Potential Project Site Visits**

Stream corridor and wetland projects that were investigated during this period are shown in Table 1. A potential major project was investigated on Goose Creek in Casey County. Land surrounding Fern Lake adjacent to Cumberland Gap National Park was also visited to determine if the FILO program could assist in the purchase of the property by preserving and enhancing Little Yellow Creek and several tributaries.

Effort was also made to further pursue potential projects identified in previous reporting periods. These included Blue Spring Creek in Trigg County, several streams on the Jefferson County Memorial Forest, and Farmers Creek on and upstream of Lee K. Nelson WMA in Webster County.

## Big Sandy Outreach - December 2011

In November 2011, an extensive outreach effort was begun in the lower Big Sandy River service area, including the counties of Boyd, Carter, Elliot, Greenup, and Lawrence. The

outreach targeted landowners with more than ten acres that bordered streams thought to be potential candidates for mitigation. A multi-media approach was implemented to conduct the outreach: a mass mailing of over 3,700 informative postcards: news releases through local newspapers and radio stations (Appendix A); and interviews with newspapers and National Public Radio.

The outreach elicited a large response from interested landowners, with approximately 200 phone calls and 50 emails received by KDFWR Stream and Wetland Mitigation Program staff. These initial contacts were ranked on factors such as amount of available stream length for mitigation, mineral right ownership, and landowner willingness to accept the conservation easement. Based on these and other factors, numerous landowners were selected for site visits that will be conducted in early 2012.

Table 1. Landowner Contacts and Potential Project Site Visits, Jul 1 – Dec 31, 2011

Date(s) of	D 4	G.	FILO Service	C .
Visit	Property	Streams	Area	County
8/2/2011	McClahan	East Fork Little Sandy River	Big Sandy	Boyd
8/23/2011	Sturckle	Tributary to Indian Run	Big Sandy	Greenup
9/21/2011	Summers	Workman Branch	Big Sandy	Floyd
12/15/2011	Camardo	Abb Cr	Big Sandy	Lawrence
12/15/2011	Moore	Dry Br	Big Sandy	Greenup
8/2/2011	Asher (adj to Cumb Gap NP)	Little Yellow Cr and several tribs	Upper Cumberland	Bell
7/26/2011	Price	Green River	Green	Casey
8/17/2011	Spears	Rough Cr	Green	Allen
9/20/2011	Tomeo	Goose Cr and several tribs	Green	Casey
10/18/2011	NRCS Conservation Easements	South Fork Green River	Green	Lincoln
10/18/2011	-	White Oak Cr	Salt	Marion
10/21/2011	Doring	Little Twin Cr	Cr Lower Kentucky	
12/6/2011	Kentucky Lake WMA	Panther Cr	Jackson Purchase	Calloway

#### **Program Financial Status**

#### July 1, 2011 – December 31, 2011

Fund balance at the end of CY11, after revenues of \$12.4M, interest of \$0.27M, and allocations and expenditures of \$9.7M (including monies returned to the fund from terminated projects), was \$40.22M (Table 2). Figure 2 shows the make-up of the fund balance, which includes not only some project funds that have been expended but also *allocated* project funds that have not yet been expended. The majority of in-lieu fees were allotted to the Big Sandy service area. The Kentucky and Green River service areas each received the second largest deposits with more than \$1.4M. The Cumberland and Licking both received smaller deposits, while Jackson Purchase and Salt River service areas were allotted zero deposits (Table 3).

Table 2. Fund Balance at end of CY11 (\$)

37,199,592
12,447,475
267,277
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0
301,672
40,216,016

<sup>&</sup>lt;sup>a</sup>Will be accumulated at end of fiscal year



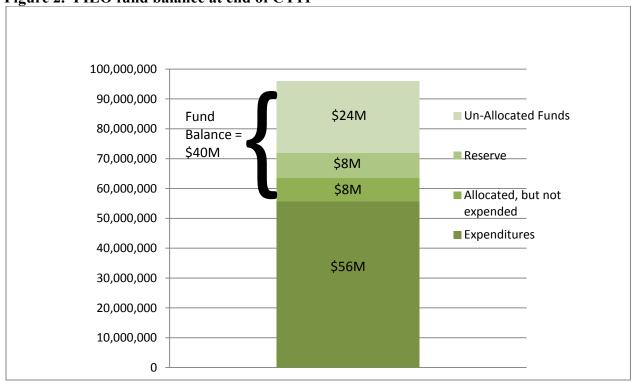


Table 3. July 01, 2011 – December 31, 2011
Receipts and Interest to FILO Fund and Administrative Account, by Service Area (\$)

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Service Area	Receipts to Projects (92.5%)	Receipts to Admin (5%)	Receipts to Contingency (2.5%)	Total Receipts	Interest	Total(Receipts + Interest)
Big Sandy	7,828,627	423,169	211,585	8,463,380	80,087	8,543,468
Kentucky	1,640,855	88,695	44,347	1,773,898	82,803	1,856,701
Cumberland	515,446	27,862	13,931	557,238	38,837	596,076
Licking	122,322	6,612	3,306	132,240	20,394	152,634
Salt	0	0	0	0	13,096	13,096
Green	1,406,664	76,036	38,018	1,520,718	15,373	1,536,091
Purchase	0	0	0	0	3,322	3,322
Administrative					13,364	13,364
Total	11,513,914	622,374	311,187	12,447,475	267,277	12,714,752

The majority of receipts have come from transportation projects, with development activities contributing the second highest amount (Table 4).

Table 4. FILO Receipts by Source July 01, 2011 – December 31, 2011

Source	Receipts (\$)	Percentage of Total
KY Transportation Cabinet	9,877,812	79.4
Mining	307,550	2.5
Development	1,800,872	14.5
Municipal	0	0.0
Other	461,240	3.7

#### FY02 – December 31, 2011

More than \$82.6M has been received in *project* funds and nearly \$8M has accrued to the program for the ten fiscal years beginning with the first receipts in FY02 (Table 5). Overall, transportation projects have generated the majority of fees (Table 6). Pursuant to federal rules and the current agreement with the USACE, interest is reserved and restricted solely for the mitigation activities of the program. Interest is accounted and presented separately.

Table 5. FILO Program Fund Receipts and Interest Accrued FY02 – December 31, 2011 (\$)

<u>Inputs to Fund</u>	<u>Projects</u>	<u>Admin (5%)</u>	<b>Contingency</b>	<u>Total</u>
Receipts	82,612,366	4,383,138	667,251	87,662,754
Interest	7,817,720	411,459		8,229,179
Total	90,430,086	4,794,595	667,251	95,891,934

Table 6. FILO Receipts by Source FY02 – December 31, 2011

Source	Receipts (\$)	Percentage of Total
KY Transportation Cabinet	53,374,372	60.9
Mining	24,431,072	27.9
Development	5,497,275	6.3
Municipal	1,838,966	2.1
Other	2,521,068	2.9

#### Allocated Funds FY02 - December 31, 2011

With total costs allocated for IRT-approved projects (both completed and projected) of \$58,608,897 (Table 7), there is \$24,003,468 remaining as of December 31, 2011 for future allocation (Table 7). Of these funds, \$990,272 is targeted for wetland mitigation. The Kentucky River service area shows more funds allocated than funds available. These deficits will be made up using funds transitioned to "Reserve" preceding the new MOA becoming effective. Accordingly, the unallocated balance for the Kentucky River Service Area is set at zero. Currently, the vast majority of unallocated funds are in the Big Sandy service area, followed by the Cumberland, Green, and Licking river service areas (Table 7; Figure 3).

Table 7. FY02 - December 31, 2011. Project Receipts, Allocated Funds, and Unallocated Funds by Service Area

	Stream					Wetland	
<u>Basin</u>	Receipts	Allocated	Unallocated		Receipts	Allocated	Unallocated
Big Sandy	29,650,343	15,809,067	13,841,276		103,563	0	103,563
Licking	6,370,194	3,817,300	2,552,894		29,412	0	29,412
Cumberland	11,227,178	7,381,983	3,845,195		360,471	0	360,471
Kentucky	24,055,205	25,056,102	-1,000,897		305,471	257,457	48,014
Salt	3,480,164	2,678,900	801,264		75,920	0	75,920
Green	5,455,025	2,483,623	2,971,402		537,757	233,949	303,808
Purchase	892,579	890,517	2,062		69,084	0	69,084
Total	81,130,687	58,117,491	23,013,196*		1,481,678	491,406	990,272

\*Un-allocated stream funds in Kentucky River Service Area are set at zero (see text)

Over the history of the FILO program, the majority of receipts have been generated from the Kentucky River and Big Sandy River service areas, with the Cumberland River service area receiving the third highest amount of receipts (Table 7).

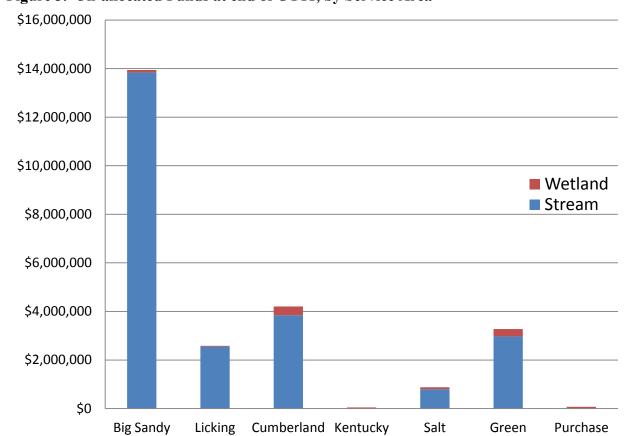


Figure 3. Un-allocated Funds at end of CY11, by Service Area

### **Mitigation of Impacts**

In the history of the FILO program, programmatic indicators have primarily been based on linear feet: length of stream mitigated and cost of mitigation per linear foot. Impact fees and mitigation were based most recently on a standard of \$170/ft of stream affected. Recently however, with the requirements of the 2008 Mitigation Rule to fully take effect when the new MOA is established, impact fees and mitigation have increasingly been based on "credits." To phase in these requirements, the USACE put out a Public Notice (LRL-1999-760) in November 2009 that established fees to be paid for impacts of \$396 per Ecological Integrity Unit (EIU) in the Eastern Kentucky Protocol region of the Commonwealth (in the Eastern Coal Field Region), \$170 per Adjusted Mitigation Unit (AMU) in the rest of the Commonwealth, and \$30,000 per acre of wetland in all parts of the Commonwealth. The Public Notice also requires that the USACE provide FILO with the number of credits necessary to compensate for impacts, a provision not required under the current MOA, and that FILO provide receipt for credit purchases to the USACE and the permittee. Thus, all permits issued after the date of the Public Notice must contain the necessary information to track credits from an impact and mitigation perspective. Although not required, this information has often been collected for permits issued prior to the November 2009 Public Notice, and the cost per credit has been an important factor in the viability and approval of design of proposed mitigation projects by the IRT.

Because in-lieu-fee payments to FILO had little documentation of impacts, especially during the first few years of the in-lieu fee program, it is not possible to relate credits earned by mitigation to impacts caused by the various 404-permitted activities. It is assumed that impacts and mitigation are occurring on similar stream flow types, resulting in similar linear feet and credits affected. Thus, programmatic success is based on cost/linear foot as in the existing MOA. The available data can show the amount of in-lieu fees received and the timing of the allocation of those funds to mitigation projects. As described above, as about \$1.0M of the \$58.6M of allocated funds will come from non-project funds (departmental and interest) in the Kentucky River service area, the actual allocation of project funds is \$57.6M, about equal to the amount of \$57.9M received through FY09 (Figure 4). In other words, all funds have been allocated by the end of CY11 except those received in the past 2.5 years. This is further illustrated statewide (Figure 5) and for each service area (Figures 6-12) over the history of the FILO program. In general, it can be seen that the money is allocated to mitigation projects within approximately two years of receiving the fees. Prior to this year, the Kentucky River basin had seen an influx of fees that have now been directed to the Rogers Gap project. At this time, all stream fees received in the Kentucky River service area have been allocated to projects. Service areas other than the Jackson Purchase and Salt River service areas have at least \$2M of unallocated funds remaining, ranging from \$2.6M in the Licking River service area to \$14M in the Big Sandy River service area.

Figure 4. Funds Allocated by end of CY11 vs Funds Received by end of FY09

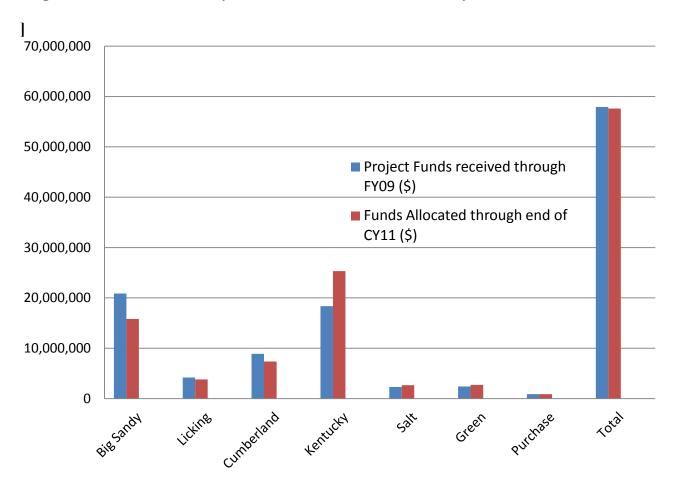


Figure 5. Cumulative in-lieu fees and allocated project funds/operating expenses

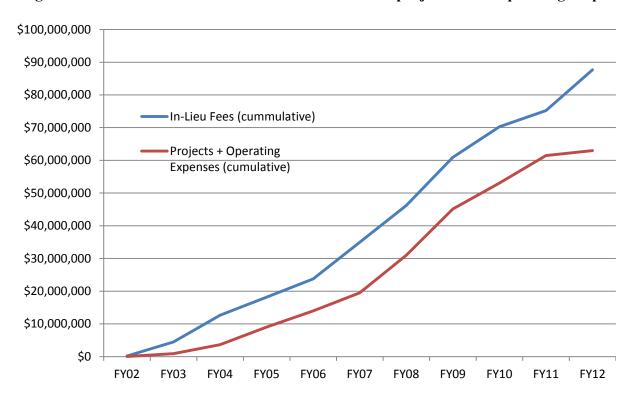


Figure 6. Big Sandy River Service Area in-lieu fees and allocated project funds/operating expenses

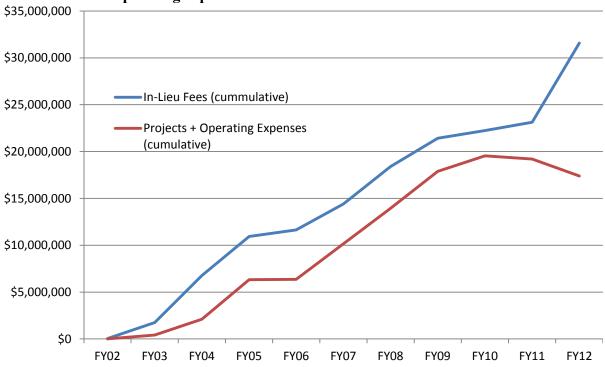


Figure 7. Cumberland River Service Area in-lieu fees and lloacated project funds/operating expenses

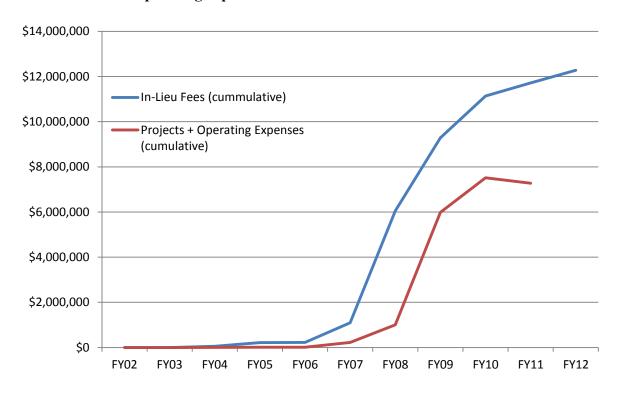


Figure 8. Licking River Service Area in-lieu fees and allocated project funds/operating expenses

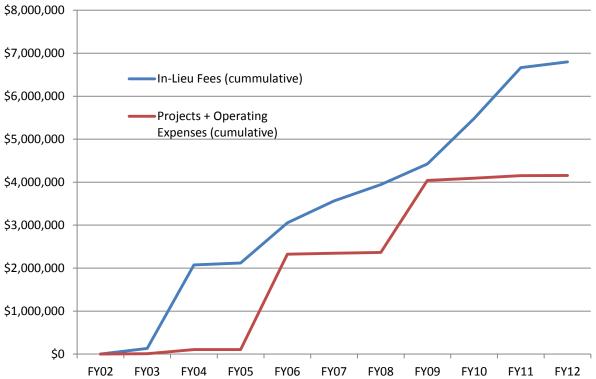


Figure 9. Kentucky River Service Area in-lieu fees and allocated project funds/operating Expenses

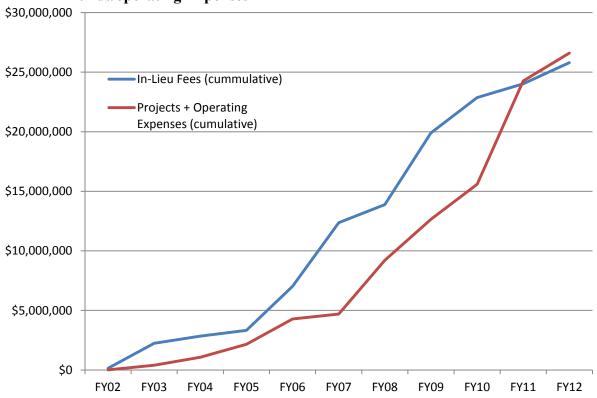


Figure 10. Salt River Service Area in-lieu fees and allocated project funds/operating Expenses

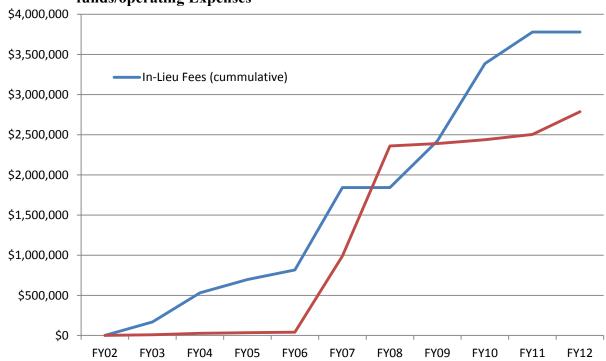


Figure 11. Green River Service Area in-lieu fees and allocated project funds/operating expenses

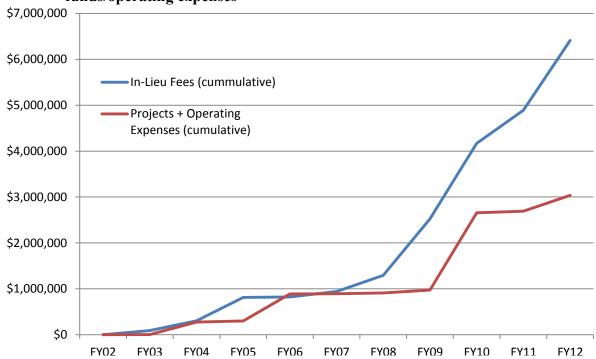


Figure 12. Purchase Service Area in-lieu fees and allocated project funds/operating expenses

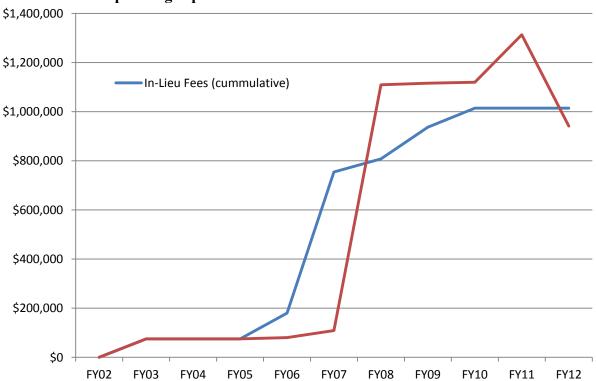


Table 8 provides summary statistics for total cost, length, and credits, and for cost per linear foot and cost per credit; Appendix A provides this data for individual projects. With the addition of the large Rogers Gap project in the Kentucky River Service Area, the average estimated project cost in the AMU region is now \$1.8M, is greater than 15,000 feet in length, gains 15,586 credits, and has a cost per credit of \$116 and a cost per foot of \$120. Also, 45.6 acres of wetland are included in projects (Eagle Cr Tributary, Forest Land Group, Cove Spring) in the AMU region at a total cost of \$491,406 or \$8,245 per acre or wetland credit.

In the EIU region, the average project is estimated at \$910,133, is more than 9,500 feet in length, gains 2,252 credits, and has a cost per credit of \$404 and a cost per foot of \$95. It should be noted that the two large preservation projects in the EIU region significantly lower the cost per foot, and to a lesser extent the cost per credit, and therefore the average costs do not reflect the cost of a restoration project. Without the two preservation projects, the estimated costs are \$185/ft and \$440/credit in the EIU region.

Table 8. Summary Data for Projects in AMU and EIU Regions of Kentucky<sup>a</sup>

	AMU Region	EIU Region
Number of Projects	19	26
Number of terminated or unfunded projects		
that have incurred costs	2	3
Total Project Cost	\$34,945,453	\$23,663,445
Total Stream Cost	\$34,454,047	\$23,663,445
Total Wetland Cost	\$491,406	-
Average Stream Project Cost	\$1,813,371	\$910,133
Total Length (ft)	287,607	247,870
Average Length (ft)	15,584	9,533
Cost/ft (all projects)	\$120	\$95
Cost/ft (w/o preservation projects)	-	\$185
Total Stream Credits	296,087	58,549
Average Stream Credits	15,584	2,252
Cost/stream credit (all projects)	\$116	\$404
Cost/stream credit (w/o preservation projects)	-	\$440
Total wetland credits (wetland AMUs)	59.6	-
Cost/wetland credit	\$8245	-

<sup>&</sup>lt;sup>a</sup>Total costs includes expenses incurred for terminated projects, but total length, total credits and average figures don't include the projects since there were terminated prior to construction.

# **Actions Taken by Interagency Review Team**

One large new project was approved by the IRT, repairs were approved on three projects, total project costs were increased on eight projects closing out the current MOA, and four projects were not approved under the current MOA but can be re-introduced under the new MOA in 2012 (Table 9).

Table 9. Actions Taken by Interagency Review Team July 1 - December 31, 2011

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Stream	Service Area	USACE District	County	Туре	Action Taken		
Ross Creek	Kentucky	Louisville	Lee	Rehabilitation	Total cost of \$3,538,760		
Cove Spring	Kentucky	Louisville	Franklin	Rehabilitation	Total project costs increased by \$113,400 to \$1,495,000		
East Fk Indian Creek	Kentucky	Louisville	Menifee	Rehabilitation	Total project costs increased by \$34,265 to \$1,042,910		
Elm Fork	Kentucky	Louisville	Owen	Rehabilitation	Total project cost increased by \$242,275 to \$1,768,000		
Pond Creek	Kentucky	Louisville	Owen	Rehabilitation	Not approved for funding under current MOA		
Terrys Branch	Kentucky	Louisville	Knott	Repairs	\$80,000		
Trammel Creek	Green	Louisville	Allen	Repairs	\$120,000		
Tributary to Eagle Cr	Green	Louisville	Allen	Re- establishment	Total project cost increased by \$145,216 to \$1,000,000		
East Fork Little Sandy River #3	Big Sandy	Louisville	Boyd	Repairs and wage adjustment	\$163,000		
Pigeon Roost Creek	Big Sandy	Louisville	Lawrence	Rehabilitation	Not approved for funding under current MOA		
Keys Creek	Big Sandy	Louisville	Boyd	Rehabilitation	Not approved for funding under current MOA		
Cat Fork	Big Sandy	Louisville	Lawrence	Rehabilitation	Not approved for funding under current MOA		
Brushy Creek	Big Sandy	Louisville	Greenup	Repair	\$550,000 for bank and floodplain stabilization		
Kinniconnick Creek/ Indian Creek	Big Sandy	Louisville	Lewis	Repair	Total project cost increased by \$398,313 to \$2,061,600		
Hatchery Creek	Cumberland	Nashville	Russell	Re- establishment	Total project cost increased by \$508,234 to \$1,950,000		
Puncheon Creek	Cumberland	Nashville	Pulaski	Rehabilitation	Total project cost increased by \$182,147 to \$3,000,000		
Harrison Fork	Salt	Louisville	Bullitt	Rehabilitation	Total project cost increased by \$329,367 to \$1,700,000		

## **Project Status**

With the addition of one new project in late 2011, there currently are 45 active or completed projects, of which 26 are either built or in construction (Figure 13). The program has preserved two high quality streams (Laurel Creek, Buck Creek) and 1557 acres of their surrounding watersheds with over 24 miles of tributaries and also contributed roughly 50% toward the purchase of a 2500-acre tract in Scott County that preserves 6.1 miles of high quality intermittent and ephemeral streams and restores and enhances another 19 stream miles.

A total of 56 projects have been approved for design by the IRT. (The two repair projects on Brushy Creek are combined with the original Brushy Creek project for this report.) As discussed above, during this reporting period four previously approved projects were not approved for funding under the current MOA. Also, Ben Willim Branch was canceled because of landowner concerns, East Fork Clarks River was terminated because of the inability to involve the landowner on the opposite bank of the original project, and Hinton Branch was canceled until funds are available in the Kentucky River service area.

Brief descriptions of activities during this reporting period are provided below. Monitoring information and compliance status are presented in Appendix B.

#### **BIG SANDY RIVER SERVICE AREA**

There are 14 projects in this service area, which is all within the USACE Louisville District and coal region using Eastern Kentucky protocols with the EIU credit system.

Ben Willim Branch, Lewis County. The project was terminated due to landowner concerns.

<u>Bolts Fork, Boyd County.</u> Design was completed and permits have been received. Landowner contracts were signed. Conservation easements need to be signed.

Brushy Creek Emergency Repair, Greenup County. No action taken in FY11. Visual assessments show that the repair work done in FY09 was successful.

Brushy Creek Emergency Repair 2, Greenup County. No action taken in FY11.

<u>Cat Fork, Lawrence County</u>. The project was not approved for funding under the current MOA, but will be re-submitted early in 2012 to include the purchase of a 501-acre tract with more than 30,000 ft of additional stream length, much of it preservation quality.

East Fork Little Sandy #1, Lawrence County. Fifth year of monitoring.

East Fork Little Sandy #2, Lawrence County. The first year of monitoring was submitted.

East Fork Little Sandy #3, Lawrence County. The first year of monitoring was submitted.

East Fork Little Sandy #4, Lawrence County. The first year of monitoring was submitted.

Figure 13. Status of Kentucky Wetland and Stream Mitigation Program Projects, Dec 2011 ▲ Complete/In Construction (26) ▲ Designed (7) Laurel Cr Gorge Slabstone Cr/Stonecoal Br Upper Cane Cr Kinniconick Cr Schultz Cr ▲ In Design (6) ▲ Conceptual (4) Claysville RL Salt Lick Cr Brushy Cr Elm Fk Trace Cr Rogers Gap ▲ Preservation (2) Cove Spring S Fk Currys Cr Bolts Fk Mill Cr -EFLS 1,2,3,4,5 Harrison Fk Upper Laurel Cr Locust Cr Eagle Cr Tributary Middle Cr ForestLand Tract -(Tradewater R/Ohio R) Balls Fk and Terrys Br N Fk KY River (SECC) Cranes Puncheon Cr Bullskin Cr Buck Cr Laurel Fk (UK) Nest Br Elisha Cr Trammel Cr **Buck Cr Tributary** Hatchery Cr Obion Cr 1, 2 N Fk KY R Trees Red Lick C 1:2,500,000 FILO Project Status - Dec 2011

<u>East Fork Little Sandy #5</u>, <u>Lawrence County.</u> The design engineer is completing design of the project. Permit applications have been submitted and comments on the Mitigation Plan have been received. A change of scope to move the waterline and construction funds were approved in FY11.

<u>Keys Creek</u>, <u>Boyd County</u>. Project has been postponed due to landowner concerns.

<u>Kinniconick Creek/Indian Creek</u>, <u>Lewis County</u>. Additional funding for repairs was requested and approved in December 2011. Repairs will most likely be made in Summer of 2012.

<u>Laurel Gorge Preservation</u>, <u>Elliott County.</u> The site was dedicated in FY10 as the Ed Mabry-Laurel Gorge WMA . The deed restrictions staved off the threat of potential road construction.

<u>Laurel Creek Tributary</u>, <u>Elliott County</u>. Project was terminated because of landowner concerns.

<u>Left Fork Trace Creek</u>, <u>Boyd County</u>. Fourth year monitoring was submitted.

Locust Creek, Lawrence County. Second year monitoring report was submitted.

<u>Middle Creek</u>, <u>Floyd County</u>. Fourth year monitoring was submitted. Debris jam became dislodged repairs if needed will take place in summer of 2012.

<u>Pigeon Roost Creek, Boyd County.</u> The project is on a stream within the Ramey-Estep Children's Home campus in Boyd County. The project was disapproved by the IRT for funding under the current MOA, but will be re-submitted early in 2012 with an updated conceptual plan and site visit.

<u>Schultz Creek, Greenup County.</u> Project is with Real Properties because of title issues. Additional landowners from a previous inheritance were discovered, and additional submittals to Real Properties will be required.

Upper Laurel Creek, Lawrence County. Third year monitoring was submitted.

#### **CUMBERLAND RIVER SERVICE AREA**

There are five projects in the upper Cumberland River basin of this service area, which is in the USACE Nashville District and partially in the coal region with Eastern Kentucky protocols and the EIU credit system and partially in the AMU region.

<u>Buck Creek Tributary</u>, <u>Pulaski County</u>. Minor repairs were completed after the Spring 2011 rain events. This project is in the second monitoring year. The as-built report from TNC has been received.

<u>Buck Creek Preservation</u>, <u>Pulaski County</u>. Updated property boundary surveys and signage were completed in FY11. A small parking area was constructed and the WMA was opened to the public.

<u>Cranes Nest Branch, Knox County.</u> Design and conservation easement survey are complete. Permits applications were made and permits received. Construction has begun.

<u>Hatchery Creek, Russell County.</u> 60% design was completed and pending submittal to the U.S. Army Corps of Engineers Nashville District's planning and regulatory sections. The topographical survey and core sampling have been completed. The project limits and channel location have been established and the completion of the mitigation plan is pending.

<u>Puncheon Creek</u>, <u>Pulaski County</u>. The design engineer is completing design of the project. Construction funding approval is anticipated in FY12.

#### **LICKING RIVER SERVICE AREA**

There are three projects in this service area, which is in the USACE Louisville District and uses the AMU credit system, except for Magoffin, Morgan, and parts of Rowan and Menifee counties, which are in the coal region and are under Eastern Kentucky protocols with the EIU credit system.

Claysville Recovery Land Site, Harrison County. Second year monitoring was submitted.

Salt Lick Creek, Bath County. Project is in construction.

Slabcamp/Stonecoal Branch, Rowan County. Project is in construction.

#### KENTUCKY RIVER SERVICE AREA

There are 15 active projects in the Kentucky River service area, which is fairly evenly divided into the coal region with Eastern Kentucky protocols using the EIU credit system and the lower basin using the AMU credit system. Two projects were terminated during this fiscal year. The entire service area is in the USACE Louisville District.

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<u>Balls Fork, Knott County.</u> This is the first project undertaken by the KDFWR in-lieu fee program. It is in the Troublesome Creek watershed and was completed in December 2005. KDFWR negotiated a sewer line crossing under the stream with Troublesome Creek Environmental Authority so as not to disturb the riparian zone. Balls fork was released from monitoring in FY11.

Roger's Gap, Scott County. This project includes acquisition of 2,500 acres containing approximately 28 miles of stream, representing ephemeral, intermittent, and perennial flow regimes. The property was acquired in December 2011 utilizing funds from the Kentucky Wetland and Stream Mitigation Program and department-contributed federal grant money specifically designated for land acquisition. Restoration or preservation has been proposed for all streams on the property, which will them be protected under a permanent conservation easements as defined by specific deed restrictions. The remainder of the property will be managed as a state-owned wildlife management area and will be open to the public.

<u>Bullskin Creek, Leslie County</u>. This enhancement project was completed in September 2005. This project is pending release from monitoring in FY12.

<u>Cove Spring, Franklin County.</u> This project is in Cove Spring Park owned by the City of Frankfort and is accessible to the public. Project design is complete and permits have been received, and municipal engineers provided an easement survey. Final project easements are pending, with construction anticipated in FY12.

<u>East Fork Indian Creek, Menifee County.</u> The project is in the Daniel Boone National Forest. Permanent protection will be provided by the U.S Forest Service (USFS) Management Plan. The project is at 60% design. Several meetings with the design contractor, KDFWR and the USFS have been held to incorporate USFW comments into design plans.

Elisha Creek, Leslie County. The project is on the USFS Daniel Boone National Forest. Permanent protection will be provided by the USFS Management Plan. The design engineer has completed the design for the project. Project scope was reduced to include only the Left Fork of Elisha Creek. Permit applications were submitted this year. Construction is anticipated in FY12.

<u>Elm Fork, Owen County</u>. The project is on Kleber WMA and is accessible to the public. The final draft of design was completed and permit materials prepared. Permit applications will be submitted early in 2012and construction should begin in the Fall of 2012.

Guy Cove, Breathitt County. The project is on Robinson Forest owned by the University of Kentucky(UK) in the Troublesome Creek watershed. This is a pilot project to rework the valley fill on a reclaimed mine site. The hollow fill is being reworked to more closely match the valley slope instead of the traditional fill required by mining regulations. In addition the reworked material is being "loose-dumped" per Reclamation Advisory Memorandum 124 that UK research has shown is more successful in restoring forest and hydrologic regimes. During this fiscal year, the second monitoring year report was submitted and the third year monitoring year was performed. Groundwater dams were successfully installed to remedy water loss in one reach.

<u>Hinton Branch, Estill County.</u> The project was withdrawn because of the lack of funding in the lower Kentucky River service area, but will be re-submitted as funds in the lower Kentucky River service area allow.

Mill Creek, Fayette County. The project is on Mill Creek Elementary School land and provided stream and wetland restoration and ongoing outdoor classroom learning opportunities. Monitoring began in FY10 and the first report was submitted in FY11. The school had expanded its campus on the property.

North Fork Kentucky River, Perry County. No action taken in FY11. Credits were not given because trees planted along 3500 feet of stream were cut down by Perry County Board of Education in dispute over legality of easement.

<u>Pond Creek, Owen County.</u> The site is on public land on the Kentucky River WMA, accessible to the public The project was not approved for funding under the current MOA, but will be re-submitted at a future date as funds in the lower Kentucky River service area allow.

<u>Red Lick, Estill County.</u> The third year monitoring year was performed by KDFWR. Although the project was determined to be in compliance, additional tree planting will be performed during the monitoring period.

Ross Creek, Lee County: Project adjacent to the Daniel Boone National Forest involving purchase of 500 acres, preservation, re-establishment, and rehabilitation of several miles of stream was approved by the IRT. Property appraisals and title searches are in progress. KDFWR is working to purchase property in summer of 2012 and begin design in fall 2012.

<u>Sand Lick Creek, Powell County.</u> Project was terminated because of unresolved issues on the USFS property.

SECC Bank Stabilization., Letcher County. The project has been released from monitoring.

<u>Terrys Branch., Knott County</u>. The project is an extension of the Ball's Fork project mentioned above in the Troublesome Creek watershed and is in the fourth monitoring year. KDFWR plans to remedy failed log vanes in FY12. Aside from the vanes, habitat has been productive at Terry's Branch and an improved

fish assemblage has resulted. KDFWR was in negotiations with American Electric Power (AEP) over a proposed transmission line. AEP plans to avoid the project.

<u>Upper Cane Creek, Menifee County.</u> Design and permit applications were completed. The conservation easement was surveyed and submitted to Real Properties for approval. Construction is planned for FY12.

#### **SALT RIVER SERVICE AREA**

There are two projects in this service area, which is entirely within the USACE Louisville District and operates with the AMU credit system.

<u>Harrison Fork, Nelson County.</u> The University of Louisville is working on the project design. A design funding increase was approved in FY10 for extra design work to avoid a gas line, groundwater monitoring, and 2-D hydrologic modeling. Bernheim and KDFWR/Real Properties are negotiating the project easement.

<u>South Fork Currys Fork, Oldham County.</u> The University of Louisville completed the design and KDFWR submitted the application and received permits for the project. The conservation easement was surveyed and approval is pending. Construction is planned for FY12.

#### GREEN/TRADEWATER RIVER SERVICE AREA

There are four projects in this service area, which is within the USACE Louisville District and operates under the AMU credit system.

<u>Eagle Creek Tributary, Union County.</u> Design approval was granted in FY10. The oil/gas lease easement restrictions for permanent protection of the site from mineral extraction should be signed early in 2012.

<u>Forestland Group Tract, Union County.</u> Project approval was granted in FY10. Land acquisition for permanent protection of the site will is nearly complete.

<u>Haney Fork, Butler County.</u> The fifth year monitoring was completed in September 2011 and the report was submitted December 2011. The success criterion for vegetation was met at 464 hardwoods per acre. The annual compliance visit is scheduled for May 2012. Release from monitoring is anticipated in FY 2012, pending fulfillment of mitigation success criteria and written verification from the Corps.

<u>Trammel Creek, Allen County.</u> An early flood event in May 2010 caused minor damage to portions of the project. Project repair was completed in summer 2010. Year 2 monitoring was completed in FY11 and the monitoring report was submitted in December 2011. The annual compliance visit was conducted in June 2010. Based on information obtained from the previous monitoring reports and the annual compliance visit, it was determined that the site required tree planting and minor stream bank repairs. The repairs are anticipated to occur in FY12.

# PURCHASE AREA (Tennessee River and Mississippi River) and LOWER CUMBERLAND RIVER BASIN

There are two projects in the Purchase service area, which is within the USACE Memphis District and operates under the AMU credit system.

<u>East Fork Clarks River, Callaway County.</u> Project terminated because of inability to involve the landowner on opposite bank of original project.

Obion Creek #1, Hickman County. Due to downstream dredging a headcut has progressed through the lower portion of the project. KDFWR and the University of Louisville have addressed the problem and planned repairs for FY12. This project is complete pending final repair.

Obion Creek #2, Hickman County. Construction by the University of Louisville's Stream Institute and Douglas Amphibious is progressing. The project is in its second phase of construction which includes repairing any sections and the placement of any structures.

# Appendix A

Press Release for Big Sandy Outreach

#### Kentucky Dept. of Fish and Wildlife Resources News

# Stream Team offers landowners free repairs to eroding and unstable streams

Nov. 21, 2011 Media Contact: Dave Baker FOR IMMEDIATE RELEASE 1-800-858-1549, ext. 4454

**FRANKFORT, Ky.** – Thousands of landowners in five eastern Kentucky counties are receiving notices in the mail from the "Stream Team." The mailer comes from the Kentucky Department of Fish and Wildlife Resources, which is offering to repair unstable or eroding streams at no cost.

"Unstable stream banks erode valuable soil and property and in turn hurt downstream fisheries," said Kentucky Fish and Wildlife Commissioner Jon Gassett. "Problems like bank erosion can – and should – be repaired. We have the funding available to make these repairs, and we can do it at no cost to landowners."

"Small streams are a very important part of Kentucky lands and its fisheries," said Fisheries Director Ron Brooks. "We are excited to have a program that meets the needs of working lands and clean water."

While any stream in Kentucky can be considered for the program, Kentucky Fish and Wildlife is making a special effort in Boyd, Carter, Elliott, Greenup and Lawrence counties. The funds come exclusively from the Stream and Wetland Mitigation Fund. No general fund tax dollars or hunting/fishing license money will be used. The mitigation fund is a trust that was created solely to improve local streams throughout Kentucky.

There are criteria that have to be met. For example, the steams must be at least 1,000 feet long with banks that are eroding or unstable, and both sides of the stream must be available for repairs.

Any landowner who did not receive a notice from Kentucky Fish and Wildlife could still be eligible. For more information, including additional requirements, visit the Kentucky Fish and Wildlife website at fw.ky.gov and look under the "Habitat Improvement" tab. Landowners also may contact B.J. Jamison with the "Stream Team," at (502) 564-9802 or by email: bj.jamison@ky.gov.

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The Kentucky Department of Fish and Wildlife Resources manages, regulates, enforces and promotes responsible use of all fish and wildlife species, their habitats, public wildlife areas and waterways for the benefit of those resources and for public enjoyment. Kentucky Fish and Wildlife is an agency of the Tourism, Arts and Heritage Cabinet. For more information on the department, visit our web site at fw.ky.gov.

Appendix B

Project Data

			AMU	J Area					
Basin/Stream	<u>Type</u>	County	USACE District	404 Permit #	Project Cost	Length (ft)	Credits	Cost/ft	Cost/credit
BIG SANDY RIVER									
Monitoring Phase									
Kinniconnick Creek	Rehabilitation Enhancement	Lewis	Louisville	LRL-2007-409-pgj	\$2,061,600	6,782	10,308	\$304	\$200
CUMBERLAND RIVER									
Design Phase									
Hatchery Creek	Establishment	Russell	Nashville		\$1,950,000	6,500	15,750	\$300	\$124
Puncheon Creek	Rehabilitation Enhancement	Pulaski	Nashville		\$3,000,000	11,760	17,765	\$255	\$169
Monitoring Phase									
Buck Creek Tributary	Rehabilitation Enhancement	Pulaski	Nashville		\$236,750	1,221	1,262	\$194	\$188
GREEN RIVER									
Conceptual Phase									
Eagle Cr Tributary (Stream)	Rehabilitation Enhancement	Union	Louisville		\$800,000	7,750	13,840	\$103	\$58
Eagle Cr Tributary (Wetland)	Establishment	Union	Louisville		\$200,000	40 ac	40		\$5,000
Forestland Gr Tract (Stream)	Preservation Enhancement	Union	Louisville		\$711,223	26,320	7,484	\$28	\$100
Forestland Gr Tract (Wetland)	Restoration Enhancement	Union	Louisville		\$33,949	5.6 ac	5.6		\$6,061
Monitoring Phase									
Trammel Creek	Rehabilitation Enhancement	Allen	Louisville	LRL-2008-936-pgj	\$712,500	3,800	6,314	\$188	\$113
Haney Fork Watershed No. 2	Rehabilitation Enhancement	Butler	Louisville		\$259,900	4,330	3,248	\$60	\$80
JACKSON PURCHASE									
<b>Construction Phase</b>									
Obion Creek II	Rehabilitation Enhancement	Hickman	Memphis	MVM-2010-074	\$780,976	23,000	69,000	\$34	\$11
Monitoring Phase									
Obion Creek	Rehabilitation Enhancement	Hickman	Memphis	200300263	\$71,013	5,684	17,052	\$12	\$4
Terminated Project									
East Fork Clarks River		Marshall	Memphis		\$38,528				

Basin/Stream	<u>Type</u>	<u>County</u>	<u>USACE</u> District	404 Permit #	Project Cost	<u>Length</u> (ft)	<u>Credits</u>	Cost/ft	Cost/credit
KENTUCKY RIVER			District			1107			
Conceptual Phase									
Rogers Gap	Preservation Enhancement Rehabilitation	Scott	Louisville		\$12,491,720	133,191	77,820	\$94	\$161
Ross Cr	Preservation Re-establishment Rehabilitation	Lee	Louisville		\$3,538,760	20,165	7,338	\$175	\$482
Design Phase									
Elm Fork	Rehabilitation Enhancement	Owen	Louisville		\$1,768,000	7,600	11,100	\$233	\$159
Permitting Phase									
Cove Spring (Stream)	Rehabilitation Enhancement	Franklin	Louisville	LRL 2009 614 pgj	\$1,237,543	7,001	9,236	\$177	\$134
Cove Spring (Wetland)	Establishment	Franklin	Louisville	LRL 2009 614 pgj	\$257,457	20.64 ac	14		\$17,784
Monitoring Phase									
Mill Creek	Rehabilitation Rehabilitation	Fayette	Louisville	LRL-2009-611- pgj	\$182,050	750	682	\$243	\$267
Not Approved for Further Funding	3								
Pond Creek		Owen	Louisville		\$17,284				
Terminated Project									
Hinton Branch		Estill	Louisville		none				
LICKING RIVER									
Construction Phase									
Salt Lick	Rehabilitation Enhancement	Bath	Louisville		\$1,647,800	5500	8,250	\$300	\$200
Monitoring Phase									
Claysville Recovery Land Aq Site	Enhancement	Harrison	Louisville	LRL-2008-644- pgj	\$269,500	2,600	2,554	\$104	\$106

Basin/Stream	<u>Type</u>	County	USACE District	404 Permit #	Project Cost	Length (ft)	Credits	Cost/ft	Cost/credit
SALT RIVER									
Design Phase									
Harrison Fork	Rehabilitation Enhancement	Nelson	Louisville	tba	\$1,700,000	8,900	12,179	\$191	\$140
South Fork of Curry's Fork	Rehabilitation Enhancement	Oldham	Louisville	LRL-2009-98- pgj	\$978,900	4,753	4,905	\$206	\$200
Total Stream Projects	19				\$34,454,047	287,607	296,087		
Total Wetland Projects	3				\$491,406	66.24	59.6		
Average Stream					\$1,813,371	15,137	15,584	\$120	\$116
Average Wetland					\$163,802	22.08ac	19.86		\$8,245

EIU Area										
Basin/Stream	Туре	County	USACE District	404 Permit #	Project Cost	<u>Length</u> (ft)	Credits	Cost/ft	Cost/credit	
Big Sandy River										
<b>Construction Phase</b>										
Brushy Creek	Rehabilitation Enhancement	Greenup	Louisville	200400931	\$736,400	4,755	2,140	\$155	\$449	
Brushy Creek Repair		Greenup	Louisville	LRL-2008-902-jct	\$115,575	1,027	-	\$113	-	
Brushy Creek Repair 2		Greenup	Louisville	LRL-2009-1074-pgj	\$118,900	830	-	\$143	-	
Brushy Creek Repair 3		Greenup	Louisville		\$550,000					
East Fork Little Sandy #2	Rehabilitation Enhancement	Lawrence	Louisville	LRL-2009-332-pgj	\$2,137,548	12,598	5,402	\$170	\$396	
East Fork Little Sandy #3	Rehabilitation Enhancement	Lawrence	Louisville	LRL-2008-1082-pgj	\$1,616,400	9,778	4,376	\$165	\$369	
East Fork Little Sandy #4	Rehabilitation Enhancement	Lawrence	Louisville	LRL-2009-123-pgj	\$817,700	3,159	1,195	\$259	\$684	
East Fork Little Sandy #5	Rehabilitation Enhancement	Lawrence	Louisville		\$775,000	2,955	1,360	\$262	\$570	
Locust Creek	Rehabilitation Enhancement	Lawrence	Louisville	LRL-2008-1249-pgj	\$688,315	3,550	1,338	\$194	\$514	
Permitting										
Bolts Fork	Rehabilitation Enhancement	Boyd	Louisville		\$1,212,923	6,760	2,765	\$179	\$439	
Schultz Creek	Rehabilitation Enhancement	Greenup	Louisville	2009-806	\$739,795	2,900	1,305	\$255	\$567	
Monitoring										
East Fork Little Sandy #1	Rehabilitation Enhancement	Lawrence	Louisville	200401120	\$332,893	1,650	742	\$202	\$396	
Middle Creek	Rehabilitation Enhancement	Floyd	-	LRL-2006-1256-pgj	\$858,460	9,180	2,214	\$94	\$388	
Upper Laurel Creek	Enhancement	Lawrence	Louisville	200500901	\$697,500	3,000	1,350	\$233	\$517	
Left Fork of Trace Creek	Rehabilitation Enhancement	Boyd	Louisville	2006-00160	\$269,200	1,300	585	\$207	\$460	
<b>Preservation Project</b>			Louisville							
Laurel Creek Gorge	Preservation	Elliot	Louisville	-	\$1,925,000	83,059	7,725	\$23	\$249	
Terminated Project										
Laurel Creek Tributary		Elliott	Louisville		\$155,858					

Basin/Stream	Type	County	USACE	404 Permit #	Project Cost	Length	Credits	Cost/ft	Cost/credit
bushiy stream	<u>. 1 y p c</u>	<u>county</u>	<u>District</u>	io i i ciniic ii	<u>i Tojett dost</u>	(ft)	Cicares	<u> </u>	cost, cr cure
Ben Willim Branch		Lewis	Lousville		none				
Not Approved for Further Funding									
Cat Fork		Lawrence	Lousville		none				
Keys Creek		Boyd	Louisville		none				
Pigeon Roost Creek		Boyd	Louisville		none				
Cumberland River		-		<u>-</u>	_		-	-	_
Permitting									
Crane's Nest Branch	Rehabilitation Enhancement	Knox	Nashville	2009-01424	\$527,820	2,275	1,078	\$232	\$490
<b>Preservation Project</b>									
Buck Creek	Rehabilitation Enhancement	Pulaski	Nashville		\$1,667,413	56,502	5,255	\$35	\$381
Kentucky River									
Design Phase									
East Fork Indian Creek	Rehabilitation Enhancement	Menifee	Louisville		\$1,042,910	2,948	1,787	\$354	\$584
Monitoring Phase			Louisville						
Laurel Fork of Troublesome Cr		Breathitt	Louisville	LRL-2007-615	\$1,576,062	5,515	2,200	\$318	\$228
Balls Fork	Rehabilitation	Knott	Louisville		\$61,450	803	270	\$77	\$796
Bullskin Creek	Rehabilitation	Leslie	Louisville	200500205-pgj	\$218,900	1,823	729	\$120	\$300
Red Lick Creek	Rehabilitation Enhancement	Estill	Louisville		\$100,483	1,860	837	\$54	\$120
North Fork Kentucky River	Enhancement	Perry	Louisville		\$30,000	3,538	0	\$8	
SECC Bank Stabilization	Rehabilitation Enhancement	Letcher	Louisville		\$61,888	821	82	\$75	\$755
Terrys Branch	Rehabilitation Enhancement	Knott	Louisville	200500205	\$734,000	2,992	1,227	\$245	\$598
Permitting									
Upper Cane Creek	Rehabilitation Enhancement	Menifee	Louisville	LRL-2009-433-pgj	\$1,055,475	5,902	1,297	\$179	\$814

Basin/Stream	<u>Type</u>	County	USACE District	404 Permit #	Project Cost	Length (ft)	<u>Credits</u>	Cost/ft	Cost/credit
Elisha Creek-USFS	Rehabilitation Enhancement	Leslie	Louisville		\$788,607	4,067	1,912	\$194	\$412
Terminated Project									
Frozen Creek		Breathitt	Louisville		\$150,220				
Red Lick #2		Estill	Louisville		\$750				
Sand Lick Creek			Louisville		none				
Licking River									
<b>Construction Phase</b>									
Slabcamp Creek-Stonecoal Branch	Re-establishmen t	Rowan	Louisville	LRL-2009-762-pgj	\$1,900,000	14,180	9,378	\$134	\$203
Total Stream Projects <sup>a</sup>	26				\$23,663,445	247,870	58,549		
Average <sup>a</sup>					\$910,133	9,533	2,252	\$95	\$404

<sup>&</sup>lt;sup>a</sup>Total cost includes expenses incurred for terminated projects, but total length, total credits, and average figures don't include the projects since they were terminated prior to construction

# Appendix C

# Compliance Information

		1	I						
<u>Project</u>	404 Permit Number/Date <u>Authorized</u>	401PM/ KDFWR PM	Date Concept Plan/Pre- Application <u>Site Visit</u>	Approval Date of Design/ Const Funds	Project Completion <u>Date (FY)</u>	First/Final Monitoring <u>Year (FY)</u>	Monitoring Report Rec'd	Mitigation <u>Status</u>	<u>Comments/Issues</u>
BIG SANDY RIVER									
		Bicknell/		5/13/09					
Ben Willim Branch	-	Jamison						Closed	Project terminated
	LRL-2010-00698	Bicknell/		8/20/08					,
Boltz Fork	5/13/11	Jamison	Jun 2008	12/8/10	_	2012	-	Open	Not constructed
	LRH-2004-00931	Bicknell/		5/4/04		-		Released from	Project failure; Approved for bank stabilization.
Brushy Creek	7/22/04	Jamison	Apr 2004	2/2/05	2006	2007		monit	monitoring suspended; repair ongoing
,	LRL-2009-1074	Bicknell/		5/13/09					
Brushy Creek Stabilization 2	10/29/09	Zimmerman	NA	5/13/09	Jan 2010	-	-	-	No monitoring required
,	, ,	Bicknell/		12/2/09					<u> </u>
Cat Fork	-	VanArsdall	Nov 2009		-	-	-	-	Not approved for further funding
	LRH-2004-01120	Bicknell/		2/11/03					
East Fork Little Sandy #1	4/11/04	Jamison		11/12/05	Jan 2007	2007/2011	None	Open	
	LRL-2009-332-pgj	Bicknell/		2/21/07				·	
East Fork Little Sandy #2	10/29/09	Jamison	Jan 2007	9/16/09	Feb 2011	2011/2015	2011	Open	
•	LRL-2008-1082-pg	Bicknell/		6/25/07		,		·	
East Fork Little Sandy #3	5/7/09	Jamison	Apr 2007	2/18/09	2011	2011/2015	2011	Open	
	LRL-2009-123-pgj	Bicknell/		10/17/07				·	
East Fork Little Sandy #4	6/12/09	Jamison	Sept 2007	3/11/09	2010	2011/2015	2011	Open	
		Bicknell/		2/18/09				·	
East Fork Little Sandy #5	LRL-2011-00456	Jamison	Dec 2008	12/8/10	-	-	-	-	Not constructed
		Bicknell/		5/13/09					
Keys Creek	-	Jamison			-	-	-	-	Not approved for further funding
	LRL-2007-409-pgj	Bicknell/		7/14/04					
Kinniconnick Creek	3/27/08	Jamison	Jul 2004	3/1/08	2009	2009/2013	2011	Open	Most likely will be repaired in Summer 2012
		Bicknell/		8/15/07					
Laurel Creek Gorge	-	Jamison	Jul 2007	NA	2010	NA	NA	NA	Preservation
		Bicknell/		6/24/2005					
Laurel Creek Tributary	-	Jamison			_	-	-	Terminated	
,	2006-00160	Bicknell/		1/12/05					
Left Fork of Trace Creek	7/10/06	Jamison	Sept 2004	4/19/06	2008	2008/2012	2011	Open	
	, ,	Bicknell/	,	6/24/05		,		'	
Locust Creek	LRL-2008-1249-pgj	Jamison	Jun 2005	9/30/09	Dec 2010	2010/2014	2011	Open	
	LRL-2006-1256-pgj	Bicknell/		7/14/04		,		,	
Middle Creek	10/31/07	Jamison	Apr 2004	6/25/07	2008	2008/2012	2011	Open	
	. , .	Bicknell/		9/16/09		,		1.5	
Pigeon Roost Creek	-	VanArsdall	Aug 2009		-	-	-	-	Not approved for further funding
_	LRL-2009-806	Bicknell/	, i	10/17/07					
Schultz Creek	5/24/10	Jamison	Sept 2007	3/17/10	-	2012	-	-	Not constructed
					•		•		

		1		1		1			
	404 Permit		Date Concept Plan/Pre-	Approval Date of Design/	Project	First/Final			
	Number/Date	401PM/	Application	Const	Completion	Monitoring	Monitoring	Mitigation	
Project	Authorized	KDFWR PM	Site Visit	Funds	Date (FY)	Year (FY)	Report Rec'd	Status	Project terminated
	200500901	Tewksbury/		7/13/03					Missing as-built and Yr 1 Monit Report
Upper Laurel Creek	3/2/06	Jamison	Jun 2003	10/5/05	2008	2009/2013	2010	Open	some maintenance and non-native species removal
CUMBERLAND RIVER	, ,								·
		Scott/							
Buck Creek	NA	Mowrey	Apr 2009	5/13/2009	2010	NA	NA	NA	preservation
	NRL-2007-0115-1	Scott/		6/1/07			As-built		F. 555.
Buck Creek Tributary	12/29/07	Mowrey		6/25/07	Jan 2010	2011/2015	survey	Open	2 <sup>nd</sup> year Monitoring Complete
	2009-01424	Scott/		4/16/08					
Crane's Nest Branch	3/1/2010	Mowrey		11/16/09	_	2012	_	Open	In Construction
	5/ =/ = = =	Scott/							
Hatchery Creek	_	Mowrey		8/17/2010	_	2013	_	_	60% Design
		Scott/		8/20/2008					
Puncheon Creek	_	Mowrey			_	2012	_	_	Design complete / pending permits
LICKING RIVER		,							O P O P
EICKING KIVEK	LRL-2008-644-pgj	Scott/		10/5/05					
Claysville Recovery Land	6/3/09	Jamison	Apr 2006	3/16/08	2010	2010/2014	2011	Open	
Claysville Necovery Land	LRL-2011-00891	Scott/	Apr 2000	8/20/08	2010	2010/2014	2011	Ореп	
Salt Lick Creek	LNL-2011-00891	Jamison	Jun 2008	8/20/08		_	_	Open	Under constructed
Jait Lick Creek	LRL-2009-762-pgj	Scott/	Juli 2008	10/5/05		_		Ореп	Onder constructed
Slabcamp C r -Stonecoal Br	10/30/09;8/12/10	Jamison	Aug 2005	5/13/09	2012	2012/2016	_	Open	under construction
·	10/30/03,8/12/10	Jannison	Aug 2003	3/13/03	2012	2012/2010		Ореп	under construction
KENTUCKY RIVER	181 2002 04447	- ,							
Della Feed	LRL-2002-01447	Fry/		2/4/02	D 2005	2007/2012	N1-	0	
Balls Fork	9/26/06	Ozburn		2/1/02	Dec 2005	2007/2012	Na	Open	
Beluga (Rogers Gap)		Fry/ Westrick	Mar 2011	4/11 4/11	-	-	-	-	Not designed
	LRL-2005-0205-pgj	Fry/		2/11/03					
Bullskin Creek	2/22/04	Ozburn		2/6/04	Sept 2005	2011	-	Open	
	LRL- 2009-614-pgj	Fry/		10/17/07					
Cove Spring	1/7/11	Ozburn		5/13/09	-	2012	-	Open	Not constructed
East Fork Indian Creek	_	Fry/ Ozburn		4/16/08	_	-	_	-	Not constructed
		Fry/		6/1/06					30. 4
Elisha Creek	LRL-2011-00404	Ozburn		2/18/09	-	-	-	Open	Not constructed
		Fry/		3/17/10					
Elm Fork	-	VanArsdall	Mar 2009		-	-	-	-	final draft design at end of CY11
	LRL-2007-00615	Fry/		1/12/06		2009			
Guy Cove	9/17/07	Ozburn		8/15/07	Mar 2009	2013	2009-10	Open	repairs made
				12/2/09					
Hinton Branch		Fry/Ozburn		-				Closed	Project terminated until funding available

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	404 Permit Number/Date	401PM/	Date Concept Plan/Pre- Application	Approval Date of Design/ Const	Project Completion	First/Final Monitoring	Monitoring	Mitigation	
Project	Authorized	KDFWR PM	Site Visit	Funds	Date (FY)	Year (FY)	Report Rec'd	Status	Comments/Issues
	LRL-2009-611-pgj	Fry/		4/16/08			2010 and		
Mill Creek	7/20/09	Ozburn		5/13/09	Oct 2009	2010/2014	As-built	Open	
		Fry/		10/14/05					
N Fk KY River tree planting	NA	Ozburn		-	2006	-	-	Closed	no credits - trees cut by Perry Co Bd Educ
Pond Creek (stream)	-	Fry/ VanArsdall	Apr 2009	5/13/09	-	2013	-	-	Not approved for further funding
		Fry/		5/13/09					<del>_</del>
Pond Creek (wetland)	-	VanArsdall		-	-	2013	-	-	Not approved for further funding
		Fry/		10/4/05					More tree planting will be done by
Red Lick Creek	LRL-2005-1331	Ozburn		4/18/07	Dec 07	2008/2012	2010	Open	KDFWR; missing Monit Reports Yrs 1-2
Ross Creek		Fry/Ozburn	April 2011	12/14/2011	Apr 2014	-	-	Open	Property purchase, survey, and design in 2012
		Fry/		4/16/08					
Sand Lick Creek	-	Ozburn		-	-	-	-	Terminated	
		Fry/		2/1/03			None		
SECC Bank Stabilization	NA	Ozburn		5/10/06	Apr 2007	2008-2012	required	Released	No monitoring required
	LRL-2005-00205	Fry/		7/17/03					repair log vanes; plant native
Terrys Branch	6/27/06	Ozburn		10/5/05	Dec 2007	2008-2012	2010	Open	trees; monitoring likely extended
	LRL-2009-433-pgj	Fry/		1/12/05					
Upper Cane Creek	10/18/09	Ozburn		2/18/09			-	Open	Not constructed
SALT RIVER									
		Tewksbury/		1/16/08					
Harrison Fork	-	Ozburn		-	-	2012	-	Open	In design
	LRL-2009-98-pgj	Tewksbury/		7/18/06					
South Fork of Curry's Fork	9/29/09	Ozburn		5/13/09	-	2012	-	Open	Not constructed
GREEN RIVER									
		Jackson/	Mar 2010	3/17/10					
Eagle Cr Tributary (Stream)	-	VanArsdall			-	-	-	-	Not designed
		Jackson/	Mar 2010	3/17/10					
Eagle Cr Tributary (Wetland)	-	VanArsdall			-	-	-	-	Not designed
Forestland Gr Tract (Stream)	-	Jackson/ VanArsdall		12/2/09 	-	-	-	-	Not designed
Forestland Gr Tract		Jackson/		12/2/09					- 0
(Wetland)	-	VanArsdall			-	-	-	-	Not designed
,	LRL 2004-01363	Jackson/		5/5/04					
Haney Fk Watershed No. 2	5/26/05	Westrick	Mar 2004	4/13/05	2006	2007/2011	All rec'd	Open	
	LRL-2008-936-pgj	Jackson/		6/7/06					
Trammel Creek	4/24/09	Westrick	Apr 2006	2/18/09	2010	2010/2014	2011	Open	As-built report posted 7/1/11
JACKSON PURCHASE									
		Fry/		6/4/03					
Obion Creek	200300263	Mowrey		6/4/03	2006	2007/2011	2011	Open	Complete
		Fry/		4/16/08					
Obion Creek II	MVM-2010-074	Mowrey	May 2012	5/13/09	-	-	-	Open	In Construction